



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,387	04/11/2002	Moshe Brody	4075/OK306	3272
7590		02/03/2009	EXAMINER	
Patent Department Macrovision Corporation 2830 De La Cruze Boulevard Santa Clara, CA 95050			DAVIS, ZACHARY A	
			ART UNIT	PAPER NUMBER
			2437	
			MAIL DATE	DELIVERY MODE
			02/03/2009	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/069,387	<b>Applicant(s)</b> BRODY ET AL.
	<b>Examiner</b> Zachary A. Davis	<b>Art Unit</b> 2437

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 03 November 2008.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-9, 12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-9, 12 and 13 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/1450B)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

**DETAILED ACTION**

1. A response was received on 03 November 2008. By this response, Claims 1, 7, 12, and 13 have been amended. No claims have been added or canceled. Claims 1-9, 12, and 13 are currently pending in the present application.

***Response to Amendment***

2. It is noted that the present response does not fully comply with the requirements of 37 CFR 1.121. In particular, the amendments to Claims 7, 12, and 13 do not properly reflect all of the changes made relative to the immediate prior version of the claims as required by 37 CFR 1.121(c)(2). Specifically, it appears that new text has been added without using underlining (see line 7 of Claim 12 and line 7 of Claim 13) and that text previously added has been indicated with underlining (see line 12 of Claim 7). However, because the present response appears to be a *bona fide* attempt to advance the prosecution of the present application, the response has been treated as though it were fully compliant with the provisions of 37 CFR 1.121. Applicant is reminded that all future responses must fully comply with 37 CFR 1.121.

***Response to Arguments***

3. Applicant's arguments filed 03 November 2008 have been fully considered but they are not persuasive.

Regarding the rejection of Claims 7-9 and 13 under 35 U.S.C. 101 as directed to non-statutory subject matter, Applicant asserts that the amendments to the claims regarding encoding a disc with a non-standard codeword now render the claims statutory (pages 6-7 of the present response). The Examiner respectfully disagrees. Applicant asserts that since the disc includes a non-standard codeword, and the non-standard codeword is represented by physical pit and land patterns different from those on a disc conforming to the IEC-908 standard, then this non-standard codeword "clearly forms apart [sic] of the structure of the disc and is not merely an 'arrangement of data'" (page 7 of the present response). However, Applicant has provided no evidence in support of this assertion, and there appears to be no description in the specification of what such a claimed "non-standard codeword" would encompass, nor does there appear to be any mention of pit and land patterns, either standard or non-standard. The fact that a particular data encoding is used does not necessarily imply that there is any physical or functional relation between the structure of the disc and the particular data encoded. Therefore, the claims still appear to be directed solely to arrangements of data on the claimed compact disc.

Regarding the rejection of Claims 1-9 and 13 under 35 U.S.C. 102(b) as being anticipated by Sinquin et al, US Patent 6425098, and with specific reference to

independent Claims 1 and 7, Applicant argues that Sinquin does not disclose all the features of the claims as amended. In particular, Applicant argues that Sinquin does not disclose or suggest the limitation of Claim 1 of the step of "at the time of mastering the original disc, selecting at least one audio data sample of the audio signal" (page 9 of the present response). However, the Examiner submits that Sinquin does disclose this step (see column 8, lines 11-28, where an error generator alters data segments at the time of mastering the original disc, and therefore clearly selects at least one data sample that is altered). Similarly, Applicant argues that Sinquin does not disclose the limitation in Claim 7 of a "copy-protected audio compact disc, encoded at the time of mastering the original disc with at least one non-standard codeword" (page 9 of the present response). First, the Examiner notes that the phrase "non-standard codeword" does not appear to be defined or even mentioned in the present specification, and thus it has been given its broadest reasonable interpretation. Further, the Examiner submits that Sinquin does disclose the claimed limitation (see column 8, lines 11-28, where, at the time of mastering an original disc, certain data segments are altered, which has been interpreted to correspond to the claimed non-standard codeword). It is also noted that although Claim 7 recites "the original disc", it is not clear from the claim language whether the claimed "copy-protected audio compact disc" is the same as the claimed "original disc". The Examiner additionally notes that Applicant has not cited any evidence in support of the various assertions made with respect to the interpretation of Sinquin (see pages 8-9 of the present response), and further notes that there does not

appear to be clear written description support of the new limitations. See below regarding the rejections under 35 U.S.C. 112, first paragraph.

Therefore, for the reasons detailed above, the Examiner maintains the rejections as set forth below.

***Specification***

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claim 1 has been amended to include the limitation "at the time of mastering the original disc, selecting at least one audio data sample of the audio signal". Claim 7 has been amended to recite the limitations "encoded at the time of mastering the original disc with at least one non-standard codeword", "at least one uncorrectable erroneous data symbol produced when mastering the original disc", and "at least one uncorrectable erroneous parity symbol produced when mastering the original disc". There does not appear to be proper antecedent basis for the new limitations in the specification as originally filed. See below regarding the rejection under 35 U.S.C. 112, first paragraph, for further detail.

***Claim Objections***

5. The objection to Claim 7 for informalities is withdrawn in light of the amendments to the claims.

***Claim Rejections - 35 USC § 101***

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 7-9 and 13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 7-9 and 13 are directed merely to arrangements of data, although stored on a compact disc. Specifically, independent Claim 7 does not recite any structure for the disc, but only discloses audio data samples and associated data symbols, at least one of which is erroneous, and that there are error correction codewords associated with the data symbols, potentially including erroneous parity symbols. This only requires an arrangement of data on the disc but no particular structure for the disc itself. Although there is recitation of a "non-standard codeword", there is no indication in the claim or specification that this codeword is anything other than a further arrangement of data on the disc. An arrangement of data is non-functional descriptive material, which is not statutory subject matter even if stored on a computer-readable medium. See MPEP § 2106.01.

***Claim Rejections - 35 USC § 112***

8. Although the previously noted issues of indefiniteness under 35 U.S.C. 112, second paragraph, have been overcome by the amendments to the claims, the amendments have also introduced new issues of indefiniteness as detailed below, and therefore the rejection of Claims 1-9, 12, and 13 is NOT withdrawn. Further, the amendments to the claims raise issues of insufficient written description, and therefore the claims are also rejected under 35 U.S.C. 112, first paragraph, as detailed below.

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claims 1-9, 12, and 13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 has been amended to include the limitation "at the time of mastering the original disc, selecting at least one audio data sample of the audio signal". There does not appear to be sufficient written description for any particular step being performed "at

the time of mastering" in the application as filed, and Applicant has not pointed out where the newly claimed subject matter is supported. See MPEP § 2163.04(I)(B).

Claim 7 has been amended to recite the limitations "encoded at the time of mastering the original disc with at least one non-standard codeword", "at least one uncorrectable erroneous data symbol produced when mastering the original disc", and "at least one uncorrectable erroneous parity symbol produced when mastering the original disc". Applicant has not pointed out where the newly claimed subject matter is supported, nor does there appear to be a written description of the above claim limitations. In particular, there appears to be no mention in the specification of a "non-standard codeword", nor does there appear to be any mention of an "uncorrectable erroneous parity symbol", and there further does not appear to be sufficient written description for encoding or producing symbols at the time of "mastering the original disc". See MPEP § 2163.04(I)(B).

Claims not specifically referred to above are rejected due to their dependence on a rejected base claim.

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 1-9, 12, and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "at the time of mastering the original disc" in line 3.

There does not appear to be sufficient antecedent basis for the phrase "the original disc". Although there is an audio compact disc recited in the preamble, it is not clear if "the original disc" is intended to refer to this disc or another disc. This renders the claim indefinite.

Claim 12 recites the limitation "each of said C2 codewords corresponding to the plurality of altered parity symbols in each of the C1 codewords" in lines 8-9. The numbers of "each of said C2 codewords" and "the plurality of altered parity symbols" does not appear to agree; that is, "each" and "plurality" do not appear to agree, which is generally unclear and renders the claim further indefinite. Similarly, the claim recites the limitation "said second plurality of altered parity symbols in each of the C1 codewords corresponding to each of the plurality of altered parity symbols in the C2 codewords" in lines 11-13. Again, the term "plurality" in the phrase "said second plurality of altered parity symbols" and the term "each" in the phrase "each of the plurality of altered parity symbols" do not appear to agree in number.

Claim 7 recites the limitation "the original disc" in lines 2, 6-7, and 8-9. There does not appear to be sufficient antecedent basis for the phrase "the original disc". Although there is an audio compact disc recited in the preamble, it is not clear if "the original disc" is intended to refer to this disc or another disc. This renders the claim indefinite. It is noted that the claim also recites "at least one altered parity symbol" in line 15; it is assumed that this is distinct from the "at least one uncorrectable erroneous parity symbol" recited in line 8 of the claim.

Claim 13 recites the limitation “each of said C2 codewords corresponding to the plurality of altered parity symbols in the C1 codewords” in lines 8-9. The numbers of “each of said C2 codewords” and “the plurality of altered parity symbols” does not appear to agree; that is, “each” and “plurality” do not appear to agree, which is generally unclear and renders the claim further indefinite. Similarly, the claim recites the limitation “said second plurality of altered parity symbols in each of the C1 codewords corresponding to each of the plurality of altered parity symbols in the C2 codewords” in lines 11-13. Again, the term “plurality” in the phrase “said second plurality of altered parity symbols” and the term “each” in the phrase “each of the plurality of altered parity symbols” do not appear to agree in number.

Claims not specifically referred to above are rejected due to their dependence on a rejected base claim.

***Claim Rejections - 35 USC § 102***

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1-9, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Sinquin et al, US Patent 6425098.

In reference to Claim 1, Sinquin discloses a method for producing a copy-protected CD including selecting a data sample at the time of mastering (column 8, lines 11-28); locating symbols representing the sample, where the symbols have error-correction codewords associated therewith (column 9, lines 11-14); overwriting the symbol with erroneous symbols (column 9, lines 46-48); and disabling error correction of the erroneous symbols, which includes altering at least one of a plurality of parity symbols in the codewords associated with the data symbols (column 10, line 60-column 11, line 33; see also column 3, line 58-column 4, line 9).

In reference to Claim 2, Sinquin further discloses that the sample is a concealable audio sample corresponding to linear interpolation of previous and subsequent samples (see column 9, lines 16-46; column 9, line 46-column 10, line 5).

In reference to Claim 3, Sinquin further discloses that the erroneous symbols are superimposed (column 8, lines 45-53; column 9, lines 46-48).

In reference to Claim 4, Sinquin further discloses selecting at least one sample from a sector in a group of sectors (column 9, lines 11-14).

In reference to Claims 5, 6, and 12, Sinquin further discloses that disabling the error correction further includes overwriting data symbols with an arbitrary erroneous symbol or erasure (column 10, line 60-column 11, line 19).

Claims 7-9 and 13 are directed to articles of manufacture corresponding substantially to the methods of Claims 1, 5, 6, and 12, respectively, and are rejected by a similar rationale.

***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Sollish et al, PCT International Application WO98/08180, discloses a method for copy protection of optical media that includes disabling error correction.

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary A. Davis whose telephone number is (571)272-3870. The examiner can normally be reached on weekdays 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ZAD/  
Examiner, Art Unit 2437

/Emmanuel L. Moise/  
Supervisory Patent Examiner, Art  
Unit 2437